


CLAIM AMENDMENTS

1. (Currently Amended) ~~A semiconductor laser excitation~~ solid state laser apparatus comprising:

a solid state laser element containing an active medium and generating laser light in response to incident excitation light;

a semiconductor laser producing the excitation light for optically exciting said solid state laser element to produce the laser light;

a power supply ~~for supplying electric power~~ producing pulses of current, each pulse changing in magnitude during the pulse, the pulses being supplied to said semiconductor laser and causing said semiconductor laser to output pulses of the excitation light; and

 an optical resonator for producing a laser beam from the laser light emitted from said ~~optically excited~~ solid state laser element, ~~wherein, when in response to the excitation light produced by said semiconductor laser is pulsed with a pulse of current to excite said solid state laser element, the current supplied to said solid state laser element is changed during the pulse.~~

2. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1, wherein, ~~when said semiconductor laser is pulsed with the pulse~~ the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element, the current supplied to said solid state laser element is decreased successively decrease in magnitude with time during the each pulse.

3. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1, wherein, ~~when said semiconductor laser is pulsed with the pulse~~ the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element, the current supplied to said solid state laser element is decreased successively in that decrease in magnitude during an initial stage of a each pulse during and are uniform in magnitude after the initial state of each pulse.

4. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1, wherein, ~~when said semiconductor laser is pulsed with the pulse~~ the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element, the current supplied to said solid state laser element is increased successively increase in magnitude with time during the each pulse.

5. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1, wherein, ~~when said semiconductor laser is pulsed with the pulse~~ the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element, the current supplied to said solid state laser element is increased successively in increase in magnitude during an initial stage of a each pulse during and are uniform in magnitude after the initial state of each pulse.

6. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1, wherein, ~~when said semiconductor laser is pulsed with the pulse~~ the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element, the current supplied to said solid state laser element is changed successively change stepwise in magnitude with time during the each pulse.

7. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1, further comprising:
a diffusive reflector enclosing said solid state laser element and having an inner surface diffusing and reflecting the ~~laser beam~~ excitation light; and
an optical waveguide element for guiding the ~~laser beam~~ excitation light emitted ~~from~~ by said semiconductor laser into said diffusive reflector while repeatedly totally reflecting the ~~laser beam~~ excitation light.

8. (Currently Amended) ~~The semiconductor laser excitation~~ solid state laser apparatus according to claim 1 including a cooling plate ~~and~~, wherein said solid state laser element has a rectangular cross section and is located on said cooling plate.

9. (New) The solid state laser apparatus according to claim 6, wherein the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element that change stepwise in magnitude, increase in magnitude after an initial stage of each pulse.

10. (New) A solid state laser apparatus comprising:
a solid state laser element containing an active medium and generating laser light in response to incident excitation light;
a semiconductor laser producing the excitation light for optically exciting said solid state laser element to produce the laser light; and
a power supply producing pulses of current, each pulse changing in magnitude during the pulse, the pulses being supplied to said semiconductor laser and causing said semiconductor laser to output pulses of the excitation light.

11. (New) The solid state laser apparatus according to claim 10, wherein the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element decrease in magnitude with time during each pulse.

12. (New) The solid state laser apparatus according to claim 10, wherein the pulses of current produced by said power supply and supplied to said semiconductor laser to excite said solid state laser element that decrease in magnitude during an initial stage of each pulse and are uniform in magnitude after the initial state of each pulse.
